

# The Center

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The Center is a quarterly newsletter compiled by WRRC to alert potential partners of technology transfer opportunities.

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## CRADA Opportunity: Restructured Fruit Products

WRRC is conducting research on molding, extrusion, forming and edible film technologies for producing healthy, value-added restructured fruit and vegetable products from bulk-processed ingredients. WRRC seeks an industry partner to produce consumer products which offer a convenient and nutritious means to supplement the fruit and vegetable component of a healthy diet. Final products based on this research could include shelf-stable snacks, health bars, refrigerated products, condiments, and ingredients in salads, baked goods and frozen foods. Fruit and vegetable based edible films could be wrapped around minimally processed fruits and vegetables, nuts and other food items to extend product shelf-life and improve quality. Growers and processors can benefit from this WRRC research through increased utilization and consumption of fruits and vegetables, extended processing periods for seasonal crops, and improved production efficiencies through increased utilization of mechanized production and harvesting systems. Ultimately consumers may benefit the most by having greater variety and choice in selecting fruit and vegetable products that are recommended for good nutrition.

WRRC is looking for an industry Cooperative Research and Development Agreement (CRADA) partner to help us in research and development of restructured fruit products. The center has extensive facilities, specialized equipment and expertise devoted to this project.

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**These colorful pieces and strips look like candy but they are actually restructured 100 percent fruit.**

## WRRC Patent Activity

### U.S. Patents Allowed:

February 8, 1999; Serial No. 08/797,266  
*DNA Sequences Encoding Solanidine  
UDP-Glucosyltransferase and Use to  
Reduce Glycoalkaloids in Solanaceous  
Plants*  
Inventors: C. P. Moehs, P. Allen,  
D. Rockhold, A. Stapleton, M. Friedman,  
W. Belknap

### U.S. Patent Applications Filed:

March 9, 1999; Divisional of Serial No.  
09/265,442  
*Glutenin Genes and Their Uses*  
Inventors: A. E. Blechl, O. D. Anderson,  
H. W. Rines, D. Somers, K. Torbert

March 26, 1999; Serial No. 09/277,599  
*Monoclonal Antibodies Against  
Capylobacter Jejuni and  
Campylobacter Coli Outer Membrane  
Antigens*  
Inventors: R. E. Mandrell, A. H. Bates,  
D. L. Brandon

## How Do Businesses Get Access to These Technologies

WRRC is seeking private companies interested in licensing technologies which have been patented or for which a patent application has been filed. We are also looking for companies interested in becoming our partners in Cooperative Research and Development Agreements (CRADAs). CRADA partners have the first right to negotiate an exclusive license for each invention which is made as part of the CRADA. We encourage small and minority-owned business to take part in our technology transfer programs.

## CRADA Opportunity: Beta Glucan Enriched Barley Products

The consumption of high fat, low fiber foods in the United States and other developed countries appears to be related to an increase in diet-related diseases such as adult onset diabetes, atherosclerosis and certain forms of cancer. Foods containing beta-glucan, a soluble dietary fiber found in oats and barley, may play a role in combatting these diseases by moderating the breakdown and absorption of carbohydrates and by decreasing blood cholesterol levels. WRRC is performing research on beta-glucan and has developed technology to produce a barley flour fraction having a high beta-glucan content. When this barley fraction is incorporated into pasta, bread, and other cereal products, consumer qualities such as taste and texture are maintained. Human feeding studies indicate that the rate of glucose absorption into the blood stream is slowed and extended over a longer period of time in subjects who consumed snack bars or pasta made from this high beta-glucan barley fraction. As a result, the demand for insulin is moderated.

WRRC is now refining the process for production of the beta-glucan-rich barley fraction and is developing process treatments which result in maximum health benefit. WRRC is seeking an industry partner for this project.

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## NIST Advanced Technology Program (ATP) National Meeting -- November 15-17, 1999 San Jose, California

WRRC will sponsor an afternoon session on food and non-food applications of plant biotechnology at the 1999 National ATP Meeting on November 15-17, 1999 in San Jose, California. Attendees from industry, academia and government will meet in San Jose to explore ongoing and future R&D investment directions, enhance their partnering and networking opportunities (with other technology developers as well as the venture capital community), and learn more about the ATP proposal process. Building on the theme "Accelerating Tomorrow's Technologies," the conference will feature in-depth workshops along six technology and economic tracks including: biotechnology, chemistry, information technology, electronics, materials and manufacturing, and economic assessment. All ARS CRADA partners and licensees are encouraged to attend.

The ATP National Meeting will be hosted by the San Jose DoubleTree Hotel. For more information and to track schedule updates, visit the meeting website at <http://www.atp.nist.gov/nationalmeeting/>. Meeting registration is on-line at [https://sales.nist.gov/conf/secure/CONF181/conf\\_register.htm](https://sales.nist.gov/conf/secure/CONF181/conf_register.htm) or call Lori Phillips, 301.975.4513, fax: 301.948.2067.